

Independent Verification and Validation (IV&V): A Valuable Tool for the Project Manager

Presented by
Darren Chiappinelli, PMP



Independent Thinking. Honest Advice.

What is Oversight? - IV&V

- Independent Verification and Validation (IV&V)
 - Industry standard role (IEEE 1012-2004)
 - Technically focused
 - Verifies results (specs are sound, specs meet business need, system meets specs)
 - Validates compliance and processes (IEEE standards, CMMI, SDLC, technology best practices, technical soundness)
 - Assesses risk, schedule, cost, resources, scope, and quality in accordance with PMI PMBOK
 - Provides anomaly reports on artifacts, processes, deliverables (end result)
 - Can range in rigor from consultative review to include full independent testing

Oversight Roles

- Informal Oversight/Project Audits
 - May report to business or IT
 - May spill over into coaching/assistance/mentoring
 - May be highly targeted or broadly applied
- Formal IV&V-like roles
 - Usually found in regulated industries
 - Pharmaceuticals, healthcare, banking, etc.
 - Compliance with regulations (HIPAA, SOX, FDA)
- Formal IV&V
 - Government contracts at Federal and State levels
 - Formality and rigor varies based on agency and project-type, size, risk, and complexity
 - May be required by statute or as diligence to spending public funds
 - May include full independent testing

The “Perceived Cost” of IV&V

- Resource costs to the project
 - Project or department usually funds IV&V
 - Interaction with IV&V consumes resources
- In arrears reviews offer little value
 - Feedback comes too late/after the fact
 - Rework is costly, painful, and unpopular
- Overly strict adherence to standards/best practices
 - Ignores the reality of project constraints
 - Lack of proportionality in process rigor

The “Potential Value” of IV&V

- Independent perspective
 - Can discover defects early in the process
 - Discovers flaws in the process before problems manifest
 - Independence factors out biases
 - Can be used as a mediator among parties
- Verification & Validation
 - Validate compliance with standards and regulations
 - Verify requirements are met and validate that the system meets its purpose
 - Validate to outside parties (courts, legislators, boards)

The “Value” of Oversight

- Organizational improvement
 - Process standardization/improvement
 - Tools/templates
- Coaching/advising
 - Sounding board
 - Problem solving
 - Dispute resolution/contract management
- Bottom line – it is about **Risk Avoidance**
 - Risk avoidance = cost avoidance = business value

Oversight Contracting Tips

- Bring it on early – Planning Phase
 - While RFP requirements are being discovered/documented
 - Prior to prime contract award
 - IV&V can help avoid procurement protests
- Don't separate IV&V contracts by project phase
 - More efficient – fewer changes to personnel and practices
 - Better consistency in reviews and advice
 - Easier to fund/more flexible to contract

Oversight Contracting Tips

- Properly fund the oversight
 - Proportional to the project size, complexity, and risks
 - Rule of thumb 3%-7% of project's budget
- Defining deliverables
 - Mix of specific and generic assessment reports (deliverables and processes)
 - Variety of reports
 - Report formality levels – formal versus informal
 - Report frequency – periodic reports
- Qualifications
 - Mix of skills – IV&V experience plus functional and technical experts
 - Cross-industry experience is valuable – don't pigeon-hole

Plan for IV&V

- Schedule the oversight reviews in your project schedule in-line with other deliverable reviews
 - Don't rush or treat IV&V reviews as a “check the block” task
 - Don't wait until the deliverables are finalized to share with IV&V
- Plan on meeting with your IV&V team weekly
 - Informal consulting can be of great value
 - Offers opportunities to “tune” the IV&V efforts
- Plan time to respond to and act on IV&V recommendations
 - Track IV&V recommendations as risks or issues
 - Follow-through on recommendations

Tips for Success for the PM

- Embrace the IV&V role
 - Inform the provider that you *expect* value from them
 - They must provide suggestions/recommendations not just criticism
 - Let them know that they are not a necessary evil
 - Maintain a positive attitude when receiving feedback
- Provide direction to the IV&V provider
 - Give them project management dimensions or technical aspects to focus on if you have concerns
 - Ensure IV&V is focused on material items
 - Offer feedback on the oversight process and deliverables

Exposing the project to IV&V

- Share information and provide access to personnel
 - *Keep your friends close and your IV&V closer*
 - Invite the IV&V team to all meetings and share all project documents and work products— IV&V can't assess what they do not witness
- Involve IV&V in deliverable definition/expectations
 - Entrance and exit criteria
 - Deliverable expectation documents (DEDs)



Using IV&V as a Tool

- IV&V can be a valuable tool for a Project Manager to validate situations and justify recommended actions
- Examples:
 - Vendor disputes
 - External stakeholders
 - Justifying changes in scope, schedule, cost, resources
 - Explaining and escalating risks formally with documentation

Organizational Improvement

- IV&V recommendations often uncover organizational issues
- Have a mechanism to generalize and escalate IV&V recommendations on one project to all projects
- Perform an overall lessons-learned report
 - IV&V final deliverable that calls out the most important findings
 - Build this incrementally through the phase-by-phase anomaly reports

Conclusion

- IV&V is a valuable addition to your project team
- It is advisable to be open and collaborative with your IV&V team
- Expect value from your IV&V provider and do your part to glean the value from them
- Proper planning for IV&V and a good relationship with the team are key to maximizing value and project success

Questions and Answers

- Contact me at:

dchiappinelli@sabot-tech.com

Sabot Technologies, Inc.

845 Great Northern Blvd

Suite 201

Helena, MT 59601



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